# Class Title: Civil Engineer II

#### **BRIEF DESCRIPTION OF THE CLASSIFICATION:**

Provides project management for major road improvement projects. Coordinates design projects with other agencies. Performs actual designs such as roadways, pumping stations, master main upgrades, and guardrails. Investigates and recommends solutions to construction field problems.

#### **ESSENTIAL FUNCTIONS:**

This information is intended to be descriptive of the key responsibilities of the classification. The following examples do not identify all duties performed by any single incumbent. Specific requirements of individual positions are described in the Job Description.

	Physical	DOCUMENTAL PRINCENCALO
	Strength Code	ESSENTIAL FUNCTIONS
1	L	Administers and coordinates design projects by scheduling design review meetings, providing design documents for technical reviews, developing and compiling design review comments, conducting field investigations, and assisting in processing payments.
2	M	Administers construction projects by participating in progress meetings, maintaining project status reports, preparing cost estimates, scheduling, coordinating and performing quality control inspections, posting changes and maintaining project plans, identifying and resolving construction field problems, preparing engineering diagrams and sketches, and assisting in processing payments.
3	L	Manages consultant contracts, enforces city ROW codes and policies, preparing program budget, prepares performance indicators, prepares reports and presentation, and prepares grant applications, helps design transportation, regional utility policies, telecommunication policies and monitors related legislation.
4	L	Performs other duties by providing public information, receiving citizen inquiries and complaints, investigating problems, developing solutions, participating in public meetings, providing status reports, publicizing traffic pattern changes, attending inter and intra departmental meetings and serving on committees.
5	L	Manages the city's pavement management and bridge inspection programs. Determines the maintenance requirements for streets, develops technical specifications, allocates funds within the budget, tracks progress, produces reports, and oversees GIS functions. Provides technical assistance to in-house crews, orders surveys, evaluates concrete and pavement conditions, designs improvements, and assists in solving field problems. Directs snow, ice, and debris removal operations during emergency conditions.
6	S	Provides engineering support services to emergency response clean-up teams.

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# **CLASS REQUIREMENTS:**

	CLASS REQUIREMENTS
Formal Education /	Work requires broad knowledge in a general professional or technical field.
Knowledge	Knowledge is normally acquired through four years of college resulting in a Bachelor's degree or equivalent.
Experience	Two years experience.
Certifications and Other Requirements	Valid Driver's License, Engineer In Training (EIT) Certification or equivialent
Reading	Work requires the ability to read contracts, construction drawings, manuals, City codes and policies, memorandum, and general correspondence.
Math	Work requires the ability to perform general math calculations such as addition, subtraction, multiplication and division, as well as geometry and algebra used for engineering calculations.
Writing	Work requires the ability to write reports, project bulletins and schedules, grant applications, presentations, memorandum, and general correspondence.
Managerial	Managerial responsibilities include managing the program budget, coordinating daily activities, and developing goals and objectives.
Budget Responsibility	Researches documents, compiles data for computer entry, and oversees data entry and has responsibility for monitoring budget expenditures (typically non-discretionary expenditures) for a work unit of less than bureau size.
Supervisory / Organizational Control	Work requires functioning as a lead worker performing essentially the same work as those directed, and includes overseeing work quality, training, instructing, and scheduling work.
Complexity	Work is governed by broad instructions, objectives and policies. Work requires the exercise of considerable initiative and independent analytical and evaluative judgment.
Interpersonal / Human Relations Skills	Contacts others within the organization. These contacts may involve similar work units or departments within the City which may be involved in decision making or providing approval or decision making authority for purchases or projects. Works with individuals outside the City who may belong to professional or peer organizations. Working with various state and federal agencies may also be required. Vendors and suppliers may also be called upon for information on purchases, supplies or products. Meetings and discussions may be conducted with customers, brokers and sales representatives.

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# OVERALL PHYSICAL STRENGTH DEMANDS:

Sedentary	Light X	Medium	Heavy	Very Heavy
S = Sedentary Exerting up to 10 lbs. occasionally or negligible weights frequently; sitting most of the time	L = Light Exerting up to 20 lbs. occasionally, 10 lbs. frequently, or negligible amounts constantly OR requires walking or standing to a significant degree.	M = Medium Exerting 20-50 lbs. occasionally, 10-25 lbs. frequently, or up to 10 lbs. constantly.	H = Heavy Exerting 50-100 lbs. occasionally, 25-50 lbs. frequently, or up to 10-20 lbs. constantly.	VH = Very Heavy Exerting over 100 lbs. occasionally, 50-100 lbs. frequently, or up to 20-50 lbs. constantly.

## **PHYSICAL DEMANDS:**

C = Continuously	F = Frequently	O = Occasionally	R = Rarely	N = Never
2/3 or more of the time.	From 1/3 to 2/3 of the time.	Up to 1/3 of the time.	Less than 1 hour per week.	Never occurs.

This is a description of the way the job is currently performed; it does not address the potential for accommodation.

PHYSICAL DEMANDS	FREQUENCY CODE	DESCRIPTION
Standing	F	Assisting personnel, fieldwork, plan reviews
Sitting	F	Computer, desk work, answering telephone, driving
Walking	F	Inter-office, field investigations, to/from job sites
Lifting	0	Files, blueprints, maps, equipment
Carrying	F	Manuals, files, blueprints, equipment
Pushing/Pulling	F	File cabinet drawers
Reaching	F	Files, blueprints, telephone, on high shelves
Handling	F	Equipment
Fine Dexterity	F	Computer keyboard, writing, calculator, taking exact measurements
Kneeling	O	Pulling files, field investigations
Crouching	0	Pulling files, field investigations
Crawling	N	
Bending	O	Pulling files, field investigations
Twisting	0	To/from desk and computer, field investigations
Climbing	R	Field investigations, stairs, ladders
Balancing	R	Field investigations, on stairs or ladders
Vision	С	Computer monitor, reading, field inspections, driving
Hearing	С	Communicating with personnel and general public, on telephone
Talking	F	Communicating with personnel and general public, on telephone
Foot Controls	F	Driving
Other (specify)	N	

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## MACHINES, TOOLS, EQUIPMENT, AND WORK AIDS:

Copy machine, fax machine, telephone, calculator, general office supplies, cellular telephone, pager, digital camera, computer, printer, scanner, standard Microsoft Windows and Office software, Internet, Fox Pro, AFIN, GIS, Hansen, work management/datbase software, hand tools.

#### **ENVIRONMENTAL FACTORS:**

D = Daily	W = Several	M = Several	S = Seasonally	N = Never
	Times Per Week	Times Per Month		

HEALTH AND SAFETY		ENVIRONMENTAL FACTO	RS
Mechanical Hazards	M	Dirt and Dust	W
Chemical Hazards	S	Extreme Temperatures	S
Electrical Hazards	S	Noise and Vibration	W
Fire Hazards	N	Fumes and Odors	N
Explosives	N	Wetness/Humidity	M
Communicable Diseases	N	Darkness or Poor Lighting	S
Physical Danger or Abuse	M		
Other (see 1 below)			

PRIMARY WORK LOCAT	TION
Office Environment	X
Warehouse	
Shop	
Vehicle	X
Outdoors	X
Other (see 2 below)	

(1)

(2)

#### **PROTECTIVE EQUIPMENT REQUIRED:**

Hard hat, steel toe boots, rain gear, safety goggles, hearing protection, safety vest

#### **NON-PHYSICAL DEMANDS:**

C = Continuously	F = Frequently	O = Occasionally	R = Rarely	N = Never
2/3 or more of the time.	From $1/3$ to $2/3$ of the time.	Up to 1/3 of the time.	Less than 1 hour per week.	Never occurs.

NON-PHYSICAL DEMANDS	
Time Pressures	F
Emergency Situations	R
Frequent Change of Tasks	F
Irregular Work Schedule/Overtime	О
Performing Multiple Tasks Simultaneously	O
Working Closely with Others as Part of a Team	F
Tedious or Exacting Work	O
Noisy/Distracting Environment	О
Other (see 3 below)	

(3)

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